

region 9. Then, after the film 5 is removed, it is annealed, and an Al layer 10 is served as a gate electrode is bridged to be formed. Eventually, the layer 10 is patterned to form a gate electrode 11. An opening is formed in the regions 7, 8 of the film 4, and a source electrode, a drain electrode are formed.



(54) THIN FILM TRANSISTOR

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- (71) RICOH CO LTD (72) TSUTOMU ISHIDA
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PURPOSE: To form a gate insulating film of a TFT at 150°C or lower by forming at least part of the film of a layer of an organic polymer material.

CONSTITUTION: Any type of polymer for constituting a layer of an organic polymer material can be used limited for use if it has a heat resistance of about 150°C. And, as a material in combination with the polymer material, a silicon oxide or silicon nitride is desirable, and a film is formed of it at 150°C or lower by a vacuum vapor-deposition method or a sputtering method. As a method for forming an organic polymer material layer, a vacuum vapor-deposition method, a sputtering method or a polymerizing method may be used. Polyimide and polyester of polymers to be used, are desirably formed as a film by the vacuum vapor-deposition method or the sputtering method.

Low

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